

Letterette

ORIGINAL

(Red)

TO

SID LEVY

LOCATION

METRO CONTAINER

FROM

J P SEROLD

LOCATION

BP OIL INC.

SUB-  
JECT

DRUMMED PRODUCTS - MSDS FORMS.

DATE

11/4/85

SID:

HERE IS THE INFORMATION WHICH YOU REQUESTED. WE EXPECT THE MSDS FORMS TO BE UPDATED WITHIN THE NEXT TWO WEEKS. WE'LL SEND A COPY TO YOU WHEN THEY COME IN. ITEMS WITH THE SAME "BRND CODE" SHARE A COMMON MSDS. GIVE A CALL TO MIKE HATCH (499-7020) OR ME (499-7377) IF YOU HAVE QUESTIONS.

SIGNATURE

John

DATE

PERSON RECEIVING COMMUNICATION - RETAIN THIS COPY FOR YOUR RECORD



SDMS DocID 2184620

**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)

BORON OIL COMPANY

BP OIL INC.

Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300 ORIGINAL

(Dad)

**DESCRIPTION**

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Compounded steam cylinder oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil and cylinder stock blend plus acidless tallow oil.

**STATEMENT OF HEALTH HAZARD**

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

**EMERGENCY TREATMENT**

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

**PHYSICAL DATA**

BOILING PT.: (Initial) 870°F

POUR PT.: 30°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: @ 60°F: 0.925

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark colored clear and bright viscous oil with hydrocarbon or faint fatty odor.

**FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT: (ASTM D-92) 540°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

# MATERIAL SAFETY DATA SHEET

PROTON 40 09, 10 77

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

## CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

ORIGINAL  
(Red)

Midland Building  
Cleveland, Ohio 44115

## DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Gas Engine Oils, two or four cycle engine oil for engines fueled with gas, diesel fuel, or dual fuels  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate polymer viscosity index improver, alkyl zinc dithiophosphate anti-wear agent and ashless amine-type polymeric dispersant. The blended oil contains not more than 0.2% zinc, and 0.4% sulfated ash.

## STATEMENT OF HEALTH HAZARD

~~HAZARD DESCRIPTION:~~ No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.  
EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

## EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.  
EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.  
NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

## PHYSICAL DATA

BOILING PT.: (Initial) 725°F; 802°F POUR PT.: (AD69) 0°F; (AD79) 0°F  
VAPOR PRESSURE: @ 100°F: Less than 0.1 mm Hg VAPOR DENSITY (Air=1): Heavier than air  
SPECIFIC GRAVITY: @ 60°F: 0.881 - 0.884 SOLUBILITY IN WATER: Negligible  
PERCENT VOLATILE: @ 100°F: 0% EVAPORATION RATE (Water=1): Very slow  
APPEARANCE AND ODOR: Pale yellow to dark orange clear and bright liquid with "petroleum oil" odor.

## FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 450°F AUTOIGNITION TEMP.: Not known  
FLAMMABLE LIMITS IN AIR: Not known  
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.  
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)

BORON OIL COMPANY

ST. CLEVELAND

Midland Building

Cleveland, Ohio 44115

## CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA) 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Hydraulic transmission fluid, torque converter fluid for mobile and stationary equipment, Type C-3 fluid

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

MOL. WT.: Mixture

COMPOSITION: Contains 96% solvent-refined petroleum lubricant base stocks plus 4% of an additive package containing alkyl zinc dithiophosphate/calcium petroleum sulfonate antiwear/antioxidant and paraffin wax alkylated naphthalene flow improver. The package contributes not more than 0.07 wt-% zinc, 0.35% calcium, 0.06% phosphorus, and 0.25% sulfur to the product.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/M<sup>3</sup> TLV (8-hour time-weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes, holding eyelids apart and away from eyeball. Remove contact lenses to assure thorough flushing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, GET PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 650°F

POUR PT.: -30°F

VAPOR PRESSURE: @ 100°F: less than 0.1 mm Hg

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: 0.875

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Red colored, clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 430°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (non-volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: ~~Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.~~

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur oxides from combustion. Reactive volatile hydrocarbons, traces of hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing. Discard oil soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 8/23/82

REPLACING DATE OF: Undated OSHA-20 sheet

PRODUCT CODES: P 3604

REVIEWED BY: P/R/WDM/ECP/RAR/QMS/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

01100

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)

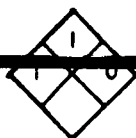
BORON OIL COMPANY

BP OIL INC.

Midland Building

Cleveland, Ohio 44115

## NFPA



## CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (24H) 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Hydrogen-treated naphthenic coastal base oil blend plus lard oil, sulfur, sulfurized mixed chain fatty acid/esters, and chlorinated paraffin anti-weld, anti-wear, extreme pressure additive. The blended oil typically contains 2.1% total sulfur, 1.5% active sulfur, and 0.5% chlorine.

STATEMENT OF HEALTH HAZARD

~~HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.~~

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8-hour time-weighted average exposure; OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 600°F

POUR PT.: -10°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier

SPECIFIC GRAVITY: @ 60°F: 0.929

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 350°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers.

Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

~~CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidiz-~~  
ing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, trace sulfur dioxide and acid chlorides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide and hydrogen chloride from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 8/4/83

REPLACING DATE OF: 1/13/83

PRODUCT CODES: P 3182

REVIEWED BY: P/JF/WDN/ECP/RAR/QNS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

## CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA) 800-424-9300

ORIGINAL  
(Red)

Midland Building  
Cleveland, Ohio 44115

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Outboard motor oil, two-cycle air-cooled engine oil, snowmobile oil

CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oils plus an ashless succinimide detergent-dispersant additive blended to SAE 40 viscosity grade and diluted with minor amount of clean burning heavy petroleum naphtha to promote easy mixing with fuel. The product contains no metals and the sulfated ash is nil.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/M<sup>3</sup> TLV (8-hour time-weighted average exposure; OSHA 29 CFR 1910.1000, Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 320°F

PUR PT.: -35°F

VAPOR PRESSURE: @ 20°C: 1 mm Hg

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: @ 60°F: 0.868

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: approx. 10%

EVAPORATION RATE (Water=1): Slower

APPEARANCE AND ODOR: Clear light brown fluid liquid with mild "gasoline" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-56) 130°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: LEL: 1% UEL: 7% (vapors of diluent naphtha)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class II Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.155).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers subjected to extreme heat may rupture with explosive violence. Plastic containers may melt from heat, releasing combustible contents. Packaged product is in polyethylene containers which will burn cleanly.



ORIGINAL  
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: ~~Contact with strong oxidizers (peroxides, chlorates, oxides under pressure, strong oxidizing acids), extreme heat or sources of ignition.~~

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: Combustible Liquid

PROPER SHIPPING NAME: Combustible Liquid N.O.S. NA 1993 (Petroleum Lubricating Oil)

PLACARD: None (packaged product)

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: NA 1993

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 8/2/82  
REPLACING DATE OF: 5/26/82  
PRODUCT CODES: P 9486

ALTERNATIVE TO OSHA-20 FORM  
00380

REVIEWED BY: PAF/MDM/EGP/BAR/CNS/WJW/SMD  
APPROVED:   
TITLE: Product Safety Coordinator

# MATERIAL SAFETY DATA SHEET

VARELLUS C EXTRA 10W30 AND 15W40 MOTOR OILS

ORIGINAL

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)

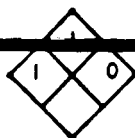
~~BORON OIL COMPANY~~

BP OIL INC.

Midland Building

Cleveland, Ohio 44115

## NFPA



## CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA) 800-424-9300

## DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Lubricating oil, crankcase oil, engine oil meeting Mack EO-K requirements

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil blend containing approximately 25% additives which include an ethylenepropylene copolymer viscosity index improver, alkylated naphthalene pour depressant, methacrylate copolymer flow improver, and detergent/dispersant/antioxidant package containing calcium petroleum sulfonate, magnesium petroleum phenate, alkyl zinc dithiophosphate, and N-substituted alkenyl succinimide. The blended oil contains no more than 0.2% zinc, 0.2% phosphorus, 0.6% sulfur, 0.4% calcium, 0.1% magnesium, and 0.1% nitrogen.

## STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8-hour time-weighted average exposure). (OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

## EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.

EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes, holding eyelids apart and away from eyeball; remove contact lenses. Skin: wash thoroughly with soap and water. Change all contaminated clothing. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

## PHYSICAL DATA

BOILING PT.: (Initial) 725°F

POUR PT.: -25°F

VAPOR PRESSURE: @ 100°F: 0.1 mm Hg

VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor

SPECIFIC GRAVITY: @ 60°F: 0.876 to 0.893

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark red, clear and bright liquid with "petroleum oil" odor.

## FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 410°F (10W30); 440°F (15W40)

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire to avoid spreading. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID:

Do not mix with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated solid absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 6/17/83

REPLACING DATE OF: 11/9/82

PRODUCT CODES: P 3544, P 3558 (10W30)

P 3580, P 3586 (15W40)

REVIEWED BY: RJF/NDM/EDP/RAR/OWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

0181D

ORIGINAL  
(Red)

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)  
FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

SYNONYMS: Railroad Diesel Engine Oil

CHEMICAL FAMILY: Hydrocarbons

CAS REGISTRY NO.: Mixture

COMPOSITION: Solvent refined paraffinic and naphthenic coastal base oil blend plus an alkaline detergent-corrosion inhibitor, an ashless dispersant, and a polymeric methacrylate flow improver. The blended oil contains not over 0.4% calcium (maximum 1.2 wt.% sulfated ash), and less than 10 ppm zinc.

FORMULA: Refined petroleum oil plus additives

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from moderate contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/M<sup>3</sup> TLV (8-hour time-weighted average exposure: OSHA 29 CFR 1910.1000, Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 560°F

VAPOR PRESSURE: @ 100°F: less than 1 mm Hg

SPECIFIC GRAVITY: @ 60°F: 0.910

PERCENT VOLATILE: 0%

APPEARANCE AND ODOR: Clear dark colored liquid with faint petroleum odor.

POUR PT.: 5°F

VAPOR DENSITY (Air=1): Heavier than air

SOLUBILITY IN WATER: Negligible

EVAPORATION RATE (Water=1): Very slow

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 460°F

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

AUTOIGNITION TEMP.: Not known

ORIGINAL  
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

~~CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.~~

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

~~RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.~~

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 5/26/82

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3460

REVIEWED BY: J.F./WDM/ECF/RAR/GWS/WJW

APPROVED: 

TITLE: Product Safety Coordinator

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.  
Midland Building  
Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)  
FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300 ORIGINAL (Red)

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Hydrogen treated naphthenic coastal base oil plus lard oil, sulfur, methyl oleate, polyisobutylene, and chlorinated paraffin extreme pressure additive. The blended oil contains not more than 3.0% free and combined sulfur and 3.0% chlorine.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 550°F

POUR PT.: -25°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier

SPECIFIC GRAVITY: @ 60°F: 0.924

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 315°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Fumes from fire may contain irritating sulfur oxides, corrosive hydrogen chloride, and traces of toxic phosgene (carbonyl chloride).

MATERIAL SAFETY DATA SHEET - CATERPILLAR MS 2039 AM

Page Two

ORIGINAL  
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, trace sulfur oxides and acid chlorides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide and hydrochloric acid from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 1/12/82

REPLACING DATE OF: 12/75 OSHA-20

PRODUCT CODES: P 3111

REVIEWED BY: RJF/WDN/ECF/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)

BORON OIL COMPANY

BP OIL INC.

Midland Building

Cleveland, Ohio 44115

## CORPORATE EMERGENCY TELEPHONE (Toll-Free)

From within Ohio: 800-362-8059

From outside Ohio: 800-321-8642

CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum oil plus additives CAS REGISTRY NO.: Mixture

SYNONYMS: Metalworking oil, Emulsifiable oil, Soluble oil

CHEMICAL FAMILY: Petroleum product FORMULA: Mixture

MOL. WT.: Mixture

COMPOSITION: Contains light clay-treated, dewaxed and heavy naphthenic base oils plus 12% balanced emulsifier containing sodium petroleum sulfonate, organic amines and glycols. Contains no chlorine.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: Concentrated product may have drying effect on skin, may be temporarily irritating to eyes, and may sensitize some individuals. The water emulsion will produce no skin effects from minimum casual contact, but viscosity is low and care should be taken to avoid eye contact or inhalation from excessive misting. Contamination during use, including rancidity from poor housekeeping, may introduce extraneous causes of irritancy.

EXPOSURE LIMITS: OSHA 8-hour time-weighted average limit in air: oil mist: 5 mg/M<sup>3</sup> (29 CFR 1910.1000, Table Z-1).

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation and lesions. Allergic reaction may occur with a few individuals. Product is designed for use diluted with 15 to 100 parts water, which will minimize effects.

EMERGENCY AID: If eyes are involved flush 15 minutes with copious water. Remove contaminated clothing and wash contacted areas with mild soap and water. Use emollient cream if needed. If swallowed, do not induce vomiting because of risk of aspiration. If breathing difficulty occurs after spontaneous vomiting see physician immediately. Petroleum oils in lungs may cause serious pneumonitis. Discard oil-soaked leather goods. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially in an unconscious person.

PHYSICAL DATA

BOILING PT.: Initial: 550°F

FREEZING PT.: Pour pt. 10°F

VAPOR PRESSURE: at 100°F: Negligible

VAPOR DENSITY (Air=1): No vapor

SPECIFIC GRAVITY: at 60°F: 0.91-0.92

SOLUBILITY IN WATER: Emulsifies

PERCENT VOLATILE: at 100°F: 0%

EVAPORATION RATE (Water=1): Negligible

APPEARANCE AND ODOR: Dark clear viscous liquid (54 cSt at 100°F). Forms opaque white emulsion in water.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 325°F (ASTM D-92)

AUTOIGNITION TEMP.: Unknown

FLAMMABLE LIMITS IN AIR: Not pertinent (low volatility)

EXTINGUISHING MEDIA: Foam, CO<sub>2</sub>, Dry Chemicals, Water Fog

SPECIAL FIRE-FIGHTING PROCEDURES: Do not direct water directly into fire to avoid foaming and spreading. Use water to cool threatened surroundings. Avoid breathing fumes. Use self-contained air supply if needed.

UNUSUAL FIRE AND EXPLOSION HAZARDS: No explosion hazard. Fight as for any petroleum oil fire.



ORIGINAL  
(Red)CHEMICAL REACTIVITY

STABILITY: Stable to heat. Emulsion may be harmed by contamination or improper mixing with water. ~~Reactive with chemical oxidizing agents.~~

CONDITIONS TO AVOID: Contact with strong oxidizing agents (peroxides, chlorine, oxygen under pressure), or strong acids which will destroy emulsion.

HAZARDOUS DECOMPOSITION PRODUCTS: Reactive hydrocarbon gases; carbon monoxide from combustion.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Remove sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system or dispose of liquid and contaminated absorbent and dyking material in landfill in compliance with federal, state, and local regulations.

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control any mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination.

WORKPLACE: Observe TLV limit for oil mist. Do not add sodium nitrite or nitrate to emulsion as added anti-rust. The reaction of nitrite with amines may result in the formation of nitroso-amines, which are potential human carcinogens. Practice good housekeeping to avoid emulsions turning rancid in use. Clean up spills. Oily spots can be slippery.

DISPOSAL: Used product is likely to be in the form of dilute emulsion. This may be collected and treated to break the emulsion. The oil phase can be skimmed and deposited in the waste oil system. The aqueous phase may be diverted to biotreatment in private or municipal secondary treatment plant.

PERSONAL: Practice good personal hygiene. Do not continue to wear oil-contaminated clothing or carry oil-soaked rags. Avoid breathing oil mist.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 1/11/82  
REPLACING DATE OF: 6/8/81  
PRODUCT CODES: P 3824

REVIEWED BY: CWS/RAR/ECP/SMD  
APPROVED:   
TITLE: Product Safety Coordinator

**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

**CORPORATE EMERGENCY TELEPHONE (Toll-Free)**

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

ORIGINAL

(Red)

**DESCRIPTION**

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Hydrogen-treated naphthenic coastal base oil plus sulfur and sulfurized mixed chain fatty acid/esters anti-weld/anti-wear additive. The oil contains not more than 6% total sulfur and 2.0% active sulfur.

**STATEMENT OF HEALTH HAZARD**

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

**EMERGENCY TREATMENT**

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

**PHYSICAL DATA**

BOILING PT.: (Initial) 570°F

POUR PT.: 10°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier

SPECIFIC GRAVITY: @ 60°F: 0.942

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

**FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT: (ASTM D-92) 355°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

ORIGINAL  
(Red)

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

~~HAZARDOUS DECOMPOSITION PRODUCTS:~~ Carbon monoxide, carbon dioxide, trace sulfur oxides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: ~~Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.~~

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3785 3185

REVIEWED BY: POF/WDM/ECF/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building  
Cleveland, OH 44115

**CORPORATE EMERGENCY TELEPHONE (Toll-Free)**

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

ORIGINAL  
(Red)

**DESCRIPTION**

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Hydrogen-treated naphthenic base oil blend plus lard oil, sulfur, sulfurized hydrocarbon, and chlorinated paraffin anti-weld, extreme pressure additives. The blended oil contains not more than 2.0% total sulfur, 2.0% active sulfur, and 0.7% chlorine.

**STATEMENT OF HEALTH HAZARD**

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

**EMERGENCY TREATMENT**

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

**PHYSICAL DATA**

BOILING PT.: (Initial) 600°F  
VAPOR PRESSURE: @ 100°F: Negligible  
SPECIFIC GRAVITY: @ 60°F: 0.925  
PERCENT VOLATILE: @ 100°F: 0%

POUR PT.: -20°F  
VAPOR DENSITY (Air=1): Heavier  
SOLUBILITY IN WATER: Negligible  
EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

**FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT: (ASTM D-92) 350°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(RED)CHEMICAL REACTIVITY

**STABILITY:** Stable under normal conditions. Not chemically reactive.

**CONDITIONS TO AVOID:** Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

~~**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, trace sulfur oxides and acid chlorides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide and hydrogen chloride from thermal decomposition.~~

SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN:** Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

**WASTE DISPOSAL:** Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

~~**RESPIRATORY PROTECTION:** Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.~~

**VENTILATION:** Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

**PROTECTIVE EQUIPMENT:** Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

**HANDLING AND STORING:** Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

**WORKPLACE:** Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

**DISPOSAL:** Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

**PERSONAL:** Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

**HAZARD CLASS:** None

**PROPER SHIPPING NAME:** Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

**PLACARD:** None

**STCC NO.:** 2911415

**LABEL:** None

**IDENTIFICATION NO.:** None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

**REVISION DATE:** 12/9/81

**REPLACING DATE OF:** New Issue

**PRODUCT CODES:** P 3195

**REVIEWED BY:** DJF/WDN/ECP/RAR/CWS/WJW/SMD

**APPROVED:**

**TITLE:** Product Safety Coordinator

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

## CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

Midland Building  
Cleveland, Ohio 44115

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Hydrogen-treated naphthenic coastal base oil blend plus organic sulfur-containing compound, alkylated phosphorus compound, chlorinated paraffin, and a blend of esters film-strengthening, metal-welding and extreme pressure additives. The blended oil contains not more than 1.0% total sulfur, 1.5% chlorine, and 0.1% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.  
EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.  
EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.  
NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 570°F POUR PT.: -25°F  
VAPOR PRESSURE: @ 100°F: Negligible VAPOR DENSITY (Air=1): Heavier  
SPECIFIC GRAVITY: @ 60°F: 0.923 SOLUBILITY IN WATER: Negligible  
PERCENT VOLATILE: @ 100°F: 0% EVAPORATION RATE (Water=1): Very slow  
APPEARANCE AND ODOR: Light colored viscous liquid with lard oil odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 350°F AUTOIGNITION TEMP.: Not known  
FLAMMABLE LIMITS IN AIR: Not known (not volatile)  
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.  
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

(Red)

ORIGINAL  
(Red)CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, trace sulfur oxides, acid chlorides, phosphorus oxides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide, hydrogen chloride from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3196

REVIEWED BY: BJF/WDH/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building  
Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)  
FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

UNCLAS  
(Red)

**DESCRIPTION**

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Hydrogen-treated naphthenic coastal base oil blend plus an anti-wear/extreme pressure additive, sulfur, and a natural oil blend to mask odor. The blended oil contains not more than 5% total sulfur, 3% active sulfur, and 4% free fatty acid.

**STATEMENT OF HEALTH HAZARD**

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

**EMERGENCY TREATMENT**

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTES TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

**PHYSICAL DATA**

BOILING PT.: (Initial) 620°F  
VAPOR PRESSURE: @ 100°F: Negligible  
SPECIFIC GRAVITY: @ 60°F: 0.939  
PERCENT VOLATILE: @ 100°F: 0%  
APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

POUR PT.: -10°F  
VAPOR DENSITY (Air=1): Heavier  
SOLUBILITY IN WATER: Negligible  
EVAPORATION RATE (Water=1): Very slow

**FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT: (ASTM D-92) 365°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None



ORIGINAL  
(Red)

### CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, sulfur oxides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide from thermal decomposition.

### SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

### SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: ~~Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.~~

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

### SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soap or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

### LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

### OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: Undated OSHA-20

PRODUCT CODES: P 3177

REVIEWED BY: DJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED:

TITLE: Product Safety Coordinator

**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

**CORPORATE EMERGENCY TELEPHONE (Toll-Free)**

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

~~Midland Building~~  
Cleveland, Ohio 44115

ORIGINAL  
(NEU)

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Cutting Oil non-emulsifiable, metal-working oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Hydrogen-treated naphthenic coastal base oil plus lard oil, sulfur, and a natural oil blend to mask odor. The blended oil contains not more than 3% free fatty acid and 2.0% free and combined sulfur.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 620°F  
VAPOR PRESSURE: @ 100°F: Negligible  
SPECIFIC GRAVITY: @ 60°F: 0.919  
PERCENT VOLATILE: @ 100°F: 0%

POUR PT.: -15°F  
VAPOR DENSITY (Air=1): Heavier  
SOLUBILITY IN WATER: Negligible  
EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 345°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, sulfur oxides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: Undated OSHA-20

PRODUCT CODES: P 3144

REVIEWED BY: PTF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED:

TITLE: Product Safety Coordinator

# MATERIAL SAFETY DATA SHEET

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building  
Cleveland, Ohio 44115

## CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

ORIGINAL  
(REG)

## DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Hydrogen-treated naphthenic coastal base oil plus oleic acid anti-weld/film strength lubricity additive.

## STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

## EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

## PHYSICAL DATA

BOILING PT.: (Initial) 550°F

POUR PT.: -50°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier

SPECIFIC GRAVITY: @ 60°F: 0.898

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Light colored viscous fluid with lard oil odor.

## FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 310°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

ORIGINAL  
(Red)

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

~~RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.~~

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothin or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: 1/77 OSHA-20

PRODUCT CODES: P 3132

REVIEWED BY: PJE/WM/ECR/RAR/CWS/WJW/SMD

APPROVED:

TITLE: Product Safety Coordinator

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.  
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Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)  
FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

ORIGINAL  
(Red)

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Hydrogen-treated naphthenic coastal base oil blend plus lard oil.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). ~~Avoid unnecessary exposure to liquid oil.~~

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 600°F	POUR PT.: -10°F
VAPOR PRESSURE: @ 100°F: Negligible	VAPOR DENSITY (Air=1): Heavier
SPECIFIC GRAVITY: @ 60°F: 0.908	SOLUBILITY IN WATER: Negligible
PERCENT VOLATILE: @ 100°F: 0%	EVAPORATION RATE (Water=1): Very slow
APPEARANCE AND ODOR: Light colored liquid with lard oil odor.	

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 370°F AUTOIGNITION TEMP.: Not known  
FLAMMABLE LIMITS IN AIR: Not known (not volatile)  
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.  
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil. Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)

#### CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

#### SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

#### SPECIAL PROTECTION AND PROCEDURES

~~RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.~~

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

#### SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

#### LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

#### OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: 1/77 OSHA-20

PRODUCT CODES: P 3135

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

## CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Automotive automatic transmission fluid, ATF, Dexron. ("Dexron" is a trade mark of GM.)

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent-refined paraffinic base oil containing a polymeric dispersant/detergent/anti-oxidant/antiwear additive package including organic sulfur, phosphorus, nitrogen, and boron derivatives. The blended oil contains not more than 0.3% sulfur, 0.02% phosphorus, 0.08% nitrogen, and less than 0.01% boron. Product is dyed red.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

Boiling PT.: (Initial) 620°F

Pour PT.: -40°F

Vapor Pressure: @ 100°F: less than 0.1 mm Hg

Vapor Density (Air=1): Heavier than air

Specific Gravity: 0.870

Solubility in Water: Negligible

Percent Volatile: @ 100°F: 0%

Evaporation Rate (Water=1): Very slow

Appearance and Odor: Clear, bright, red colored liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

Flash Point: (ASTM D-92) 390°F

Autoignition Temp.: Not known

Flammable Limits in Air: Not known

Extinguishing Media: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

Special Fire-Fighting Procedures: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

Usual Fire and Explosion Hazards: None



ORIGINAL  
(Red)

### CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids). ~~extreme heat or sources of ignition.~~

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, trace sulfur oxides and acid chlorides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide and hydrochloric acid from thermal decomposition.

### SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

### SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

### SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

### LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

### OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 12/9/81

REPLACING DATE OF: 12/75 OSHA-20

PRODUCT CODES: P 3111

REVIEWED BY: PJF/WDM/ECP/EAR/GWS/WJW/SMD

APPROVED:

TITLE: Product Safety Coordinator

MARKETED BY:  
THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building  
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CORPORATE EMERGENCY TELEPHONE (Toll-Free)  
FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

ORIGINAL  
(Red)

#### DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Hydrogen-treated naphthenic base oil blend plus sulfur, sulfurized hydrocarbon, mixed chain fatty acid/ester and chlorinated paraffin anti-weld, anti-wear, extreme pressure additive. The blended oil contains not more than 10% total sulfur, 4% active sulfur, and 0.5% chlorine.

#### STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

#### EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

RECOMMENDATION TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

#### PHYSICAL DATA

BOILING PT.: (Initial) 600°F  
VAPOR PRESSURE: @ 100°F: Negligible  
SPECIFIC GRAVITY: @ 60°F: 0.965  
PERCENT VOLATILE: @ 100°F: 0

POUR PT.: 30°F  
VAPOR DENSITY (Air=1): Heavier  
SOLUBILITY IN WATER: Negligible  
EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

#### FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 350°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY

**STABILITY:** Stable under normal conditions. Not chemically reactive.

**CONDITIONS TO AVOID:** Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, trace sulfur oxides, acid chlorides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide, hydrogen chloride from thermal decomposition.

SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN:** Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

**WASTE DISPOSAL:** Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

**RESPIRATORY PROTECTION:** Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

**VENTILATION:** Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

**PROTECTIVE EQUIPMENT:** Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

**HANDLING AND STORING:** Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

**WORKPLACE:** Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

**DISPOSAL:** Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release. New product is not a hazardous waste under RCRA, but changes and contamination during use may cause spent product to be so classified. If in doubt, check characteristics against definitions in 40 CFR Part 260.

**PERSONAL:** Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked clothing or leather goods. Wash with mild soap and water. Do not use abrasive soaps or petroleum solvents to clean skin. Use emollient cream to counter dry skin if needed. Protect minor skin injuries from contact with fluid.

LABELING AND SHIPPING

**HAZARD CLASS:** None

**PROPER SHIPPING NAME:** Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

**PLACARD:** None

**LABEL:** None

**STCC NO.:** 2911415

**IDENTIFICATION NO.:** None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

**REVISION DATE:** 12/9/81

**REPLACING DATE OF:** New Issue

**PRODUCT CODES:** P 3201

**REVIEWED BY:** BJF/WDM/ECP/RAR/CWS/WJW/SMD

**APPROVED:** 

**TITLE:** Product Safety Coordinator

# MATERIAL SAFETY DATA SHEET

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY

BP OIL INC.

Midland Building  
Cleveland, Ohio 44115

## CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

ORIGINAL  
(Red)

## DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Emulsifiable glass grinding and polishing coolant

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Blend of kerosene and light hydrogen-treated naphthenic coastal base oil (71%) plus lard oil (5%) and a blend of various polyoxyethylated derivatives of sorbitan trioleate and octylphenol as emulsifiers (24%).

## STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

## EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

## PHYSICAL DATA

BOILING PT.: (Initial) 570°F

POUR PT.: 10°F

VAPOR PRESSURE: @ 68°F: 2 mm Hg

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: @ 60°F: 0.928

SOLUBILITY IN WATER: Forms an emulsion

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Slower than water

APPEARANCE AND ODOR: Clear light colored liquid with mild hydrocarbon or fatty odor. Readily emulsifies with water.

## FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 260°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/20/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3822

REVIEWED BY: PJF/WDH/ECP/RAR/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ORIGINAL  
(Red)

### CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, ~~chlorates~~, ~~perchlorates~~, ~~oxygen under pressure~~, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

### SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

### SPECIAL PROTECTION AND PROCEDURES

PIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

### SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

### LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

### OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/20/81

REPLACING DATE OF: Undated OSHA-20

PRODUCT CODES: P 3325, P 3326

REVIEWED BY: PJF/WM/EGP/RAR/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM

**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)  
FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

ORIGINAL  
(Red)

**DESCRIPTION**

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Fast quenching oil, metal heat-treating oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Dewaxed clay contacted inhibited light oil plus heavy paraffin petroleum resins for viscosity and heat transfer control. The oil contains polynuclear aromatic hydrocarbons (circa 15%).

**STATEMENT OF HEALTH HAZARD**

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil or vapors from hot oil during use.

**EMERGENCY TREATMENT**

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

**PHYSICAL DATA**

BOILING PT.: (Initial) 550

POUR PT.: 0°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: @ 60°F: 0.871

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark, low viscosity liquid with oil odor.

**FIRE AND EXPLOSION HAZARD DATA**

AUTOIGNITION TEMP.: Not known

FLASH POINT: (ASTM D-92) 325°F

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources. Quenching of hot metal may generate volatile decomposition products. Ventilation should be adequate to avoid continued inhalation of or contact with fumes during use.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/20/81

REPLACING DATE OF: Undated OSHA-20

PRODUCT CODES: P 3146, P 9345

REVIEWED BY: PJF/WDN/ECF/RAR/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ALTERNATIVE TO OSHA-20 FORM



## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

## CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Compressor cylinder and crankcase lubricating oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Hydrogen-treated naphthenic coastal base oil (99%) plus some calcium sulfonate, zinc dialkyl dithiophosphate, and polyoxyethylated nonylphenol additives. Blended product contains not more than 0.1% zinc, 0.1% phosphorus, 0.1% calcium.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 570°F

POUR PT.: (A68) -10°F; (A100) -5°F

VAPOR PRESSURE: @ 100°F: less than 0.1 mm Hg

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: @ 60°F: 0.927 to 0.931

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0.7

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Clear light colored liquid with hydrocarbon odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) (A68) 370°F; (A100) 380°F AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, trace sulfur oxides from combustion. Reactive volatile hydrocarbons, trace hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/20/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3094, P 3091

REVIEWED BY: PJF/WDM/ECP/RAR/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Lubricating oil, crankcase oil, engine oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate polymer viscosity index improver and alkyl zinc dithiophosphate, calcium sulfonate, calcium phenate, and ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% zinc, 0.3% calcium, and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.  
EXPOSURE LIMITS: Oil mist:  $5 \text{ mg/m}^3$  (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.  
EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.  
NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F POUR PT.: -25°F  
VAPOR PRESSURE: @ 100°F: <0.1 mm Hg VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor  
SPECIFIC GRAVITY: @ 60°F: 0.876-0.893 SOLUBILITY IN WATER: Slight  
PERCENT VOLATILE: 0% EVAPORATION RATE (Water=1): Very slow  
APPEARANCE AND ODOR: Dark orange clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 425°F AUTOIGNITION TEMP.: Not known  
FLAMMABLE LIMITS IN AIR: Not known  
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.  
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

## MATERIAL SAFETY DATA SHEET - AUTRAN DEXRON II

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CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

~~CONDITIONS TO AVOID:~~ Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur oxides from combustion. Reactive volatile hydrocarbons and traces of hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

WASTE DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/18/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3602, P 3609

REVIEWED BY: PJF/WDH/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

ORIGINAL  
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

WASTE DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

OPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

ACARD: None

CC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

ISSUANCE DATE: 11/5/81

REPLACING DATE OF: Undated OSHA-20 Form

PRODUCT CODES: P 3513, P 3594

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

RELATIVE TO OSHA 20 FORM

ORIGINAL  
(Red)

#### CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions. Not chemically reactive.

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

#### SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

#### SPECIAL PROTECTION AND PROCEDURES

PIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

#### SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

#### LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

#### OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/6/81

REPLACING DATE OF: New Issue

PRODUCT CODES: P 3436, P 3437

REVIEWED BY: PJF/WTM/ECP/RAR/CWS/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)

BORON OIL COMPANY

BP OIL INC.

Midland Building

Cleveland, Ohio 44115

**CORPORATE EMERGENCY TELEPHONE (Toll-Free)**

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

(Red)

**DESCRIPTION**

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Crankcase Oil, Internal combustion engine oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil plus dibutyl paracresol oxidation inhibitor and oleoyl sarcosine surfactant rust inhibitor.

**STATEMENT OF HEALTH HAZARD**

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

**EMERGENCY TREATMENT**

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

**PHYSICAL DATA**

BOILING PT.: (Initial) 700°F

POUR PT.: 5°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: @ 60°F: 0.878

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark, clear and bright liquid with petroleum odor.

**FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT: (ASTM D-92) 470°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)

### CHEMICAL REACTIVITY

**STABILITY:** Stable under normal conditions. Not chemically reactive.

~~**CONDITIONS TO AVOID:**~~ Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide from combustion. Reactive volatile hydrocarbons from thermal decomposition.

### SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN:** Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

**WASTE DISPOSAL:** Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

### SPECIAL PROTECTION AND PROCEDURES

**RESPIRATORY PROTECTION:** Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

**VENTILATION:** Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

**PROTECTIVE EQUIPMENT:** Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

### SPECIAL PRECAUTIONS

**HANDLING AND STORING:** Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

**WORKPLACE:** Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

**DISPOSAL:** Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

**PERSONAL:** Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

### LABELING AND SHIPPING

**HAZARD CLASS:** None

**PROPER SHIPPING NAME:** Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

**PLACARD:** None

**LABEL:** None

**STCC NO.:** 2911415

**IDENTIFICATION NO.:** None

### OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

**REVISION DATE:** 11/6/81

**REPLACING DATE OF:** New Issue

**PRODUCT CODES:** P 3379

**REVIEWED BY:** PJF/WDM/ECP/RAR/CWS/WJW/SMD

**APPROVED:** 

**TITLE:** Product Safety Coordinator



**MATERIAL SAFETY DATA SHEET****MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

**CORPORATE EMERGENCY TELEPHONE (Toll-Free)**

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

Midland Building  
Cleveland, Ohio 44115

ORIGINAL  
(Red)

**DESCRIPTION**

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Gear lubricants, automotive gear lubricants  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives MOL. WT.:  
COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate copolymer pour de-  
pressant, antifoam and a sulfur-phosphorus multi-purpose additive. The blended oil contains  
not more than 3.0% sulfur and 0.2% phosphorus.

**STATEMENT OF HEALTH HAZARD**

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, ir-  
ritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneu-  
monitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR  
1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

**EMERGENCY TREATMENT**

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irrita-  
tion, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing  
liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may  
cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect  
may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart  
and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and  
water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO  
NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vom-  
iting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPO-  
SURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

RE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vom-  
iting should not be induced, and gastric lavage should be undertaken with consideration of  
endotracheal intubation, especially with an unconscious patient.

**PHYSICAL DATA**

BOILING PT.: (Initial) 650°F POUR PT.\*: -20°F/0°F/0°F  
VAPOR PRESSURE: @ 100°F: less than 0.1 mm Hg VAPOR DENSITY (Air=1): Heavier than air  
SPECIFIC GRAVITY: @ 60°F: 0.883 to 0.902 SOLUBILITY IN WATER: Negligible  
PERCENT VOLATILE: @ 100°F: 0% EVAPORATION RATE (Water=1): Very slow  
APPEARANCE AND ODOR: Pale yellow to orange, orange-red to black (140) liquid with "petroleum  
oil" odor.

\*Property listed in order 80/90/140

**FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT\*: (ASTM D-92) 400°F/400°F/420°F AUTOIGNITION TEMP.: Not known  
FLAMMABLE LIMITS IN AIR: Not known  
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.  
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protec-  
tion. Do not spray water directly into fire to avoid foaming or spread of floating oil.  
Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA  
29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)

CHEMICAL REACTIVITY

~~STABILITY: Stable under normal conditions. Not chemically reactive.~~

CONDITIONS TO AVOID: Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and trace sulfur dioxide from combustion. Reactive volatile hydrocarbons and possible trace hydrogen sulfide from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

PERSONAL: Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

REVISION DATE: 11/6/81

REPLACING DATE OF: 4/80 OSHA-20

PRODUCT CODES: P 3345, P 3346, P 3339

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building  
Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (Toll-Free)  
FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

(new)

DESCRIPTION

CAS REGISTRY NO.: Mixture

CHEMICAL NAME: Petroleum Oil

SYNONYMS: Gear Lubricants

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives MOL. WT.:

COMPOSITION: Solvent refined paraffinic base oil blend plus antifoam and a sulfur-phosphorus multi-purpose additive. The blended oil contains not more than 3.0% sulfur and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

RE: TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 655°F

POUR PT.\*: -15°F/0°F/5°F/10°F/35°F

VAPOR PRESSURE: @ 100°F: less than 0.1 mm Hg

VAPOR DENSITY (Air=1): Heavier than air

SPECIFIC GRAVITY: @ 60°F: 0.890 to 0.933

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Pale yellow to orange (85, 125); orange-red to black (170-500) liquid with "petroleum oil" odor.

\*Property listed in order 80/125/170/250/500

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 400°F or above

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)

### CHEMICAL REACTIVITY

**STABILITY:** Stable under normal conditions. Not chemically reactive.

**CONDITIONS TO AVOID:** Contact with strong oxidizers (peroxides, chlorine, oxygen under pressure, strong oxidizing acids), extreme heat or sources of ignition.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide and trace sulfur dioxide from combustion. Reactive volatile hydrocarbons and trace hydrogen sulfide from thermal decomposition.

### SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN:** Eliminate all sources of ignition. Contain spill. Recover liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil-impervious gloves, boots, or other protective clothing as needed.

**WASTE DISPOSAL:** Deposit recovered oil in waste oil system, incinerate under approved conditions, or transfer oil to approved re-refiner. Contaminated absorbent and diking solids may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

### SPECIAL PROTECTION AND PROCEDURES

**RESPIRATORY PROTECTION:** Not needed in normal use. A cartridge respirator for oil mist may be used where misting is a problem.

**VENTILATION:** Local or mechanical ventilation sufficient to control mist below TLV level. Check for possible ignition sources.

**PROTECTIVE EQUIPMENT:** Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

### SPECIAL PRECAUTIONS

**HANDLING AND STORING:** Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

**WORKPLACE:** Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possible ignition sources.

**DISPOSAL:** Used oil must be disposed of in an environmentally acceptable manner. See WASTE DISPOSAL. Do not put oil into sewer system or use as road oil or for other use which may result in uncontrolled release.

**PERSONAL:** Good personal hygiene is most important. Keep clean. Do not continue to wear oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

### LABELING AND SHIPPING

**HAZARD CLASS:** None

**PROPER SHIPPING NAME:** Lubricating Oil (Motor); Petroleum Lubricating Oil (Rail)

**PLACARD:** None

**STCC NO.:** 2911415

**LABEL:** None

**IDENTIFICATION NO.:** None

### OTHER REGULATORY REQUIREMENTS


Any environmental release which introduces oil into public waterways (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802) (FWPCA §311(b)(3)).

**REVISION DATE:** 11/6/81

**REPLACING DATE OF:** 4/80 OSHA-20

**PRODUCT CODES:** P 3341, P 3338, P 3342,  
P 3340, P 9681

**REVIEWED BY:** PJF/WDH/ECP/RAR/CWS/WJW/SMD

**APPROVED:** 

**TITLE:** Product Safety Coordinator

**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

**CORPORATE EMERGENCY TELEPHONE (Toll-Free)**

FROM WITHIN OHIO: 800-362-8059 ORIGINAL

FROM OUTSIDE OHIO: 800-321-8642 (Red)

CHEMTREC (CMA): 800-424-9300

**DESCRIPTION**

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Cutting Oil, non-emulsifiable metal-working oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Hydrogen treated naphthenic coastal base oil plus lard oil, sulfur, methyl oleate, polyisobutylene, and chlorinated paraffin extreme pressure additive. The blended oil contains not more than 3.0% free and combined sulfur and 3.0% chlorine.

**STATEMENT OF HEALTH HAZARD**

HAZARD DESCRIPTION: No acute effects from incidental contact with new oil. Skin dryness, irritation, dermatitis from excessive prolonged or repeated contacts. Danger of serious pneumonitis from aspiration into lungs if swallowed.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> TLV (8 hour time weighted average exposure; OSHA 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

**EMERGENCY TREATMENT**

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis with increasing difficulty in breathing. This effect may be delayed. Contamination during use may aggravate possible skin irritation effects.

EMERGENCY AID: Eyes: wash with copious water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with mild soap and water. Change all contaminated clothing. Swallowing: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. After spontaneous vomiting, monitor for breathing difficulty. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ('oil pneumonia'). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

**PHYSICAL DATA**

BOILING PT.: (Initial) 550°F

POUR PT.: -25°F

VAPOR PRESSURE: @ 100°F: Negligible

VAPOR DENSITY (Air=1): Heavier

SPECIFIC GRAVITY: @ 60°F: 0.924

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: @ 100°F: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark viscous liquid with sulfurous odor.

**FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT: (ASTM D-92) 315°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known (not volatile)

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes, wear adequate respiratory protection. Do not spray water directly into fire to avoid foaming or spread of floating oil.

Use water to cool threatened containers. Product is a Class IIIB Combustible Liquid (OSHA 29 CFR 1910.106). Fires involving product are Class B fires (OSHA 29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Fumes from fire may contain irritating sulfur oxides, corrosive hydrogen chloride, and traces of toxic phosgene (carbonyl chloride).

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

REVISION DATE: 11/5/81

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

REPLACING DATE OF: Undated OSHA-20 Form

APPROVED:

PRODUCT CODES: P 3594

TITLE: Product Safety Coordinator

**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

**CORPORATE EMERGENCY TELEPHONE (Toll-Free)**

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

Cleveland, Ohio 44115

ORIGINAL  
(Red)

**DESCRIPTION**

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Lubricating oil, crankcase oil, engine oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Solvent refined paraffinic base oil blend plus alkyl zinc dithiophosphate, magnesium phenate, calcium phenate, ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% calcium, 0.2% zinc, 0.1% magnesium and 0.2% phosphorus.

**STATEMENT OF HEALTH HAZARD**

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.  
EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

**EMERGENCY TREATMENT**

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.  
EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.  
NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

**PHYSICAL DATA**

BOILING PT.: (Initial) 725°F POUR PT.: -20°F to +10°F  
VAPOR PRESSURE: @ 100°F: 0.1 mm Hg VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor  
SPECIFIC GRAVITY: @ 60°F: 0.876 to 0.901 SOLUBILITY IN WATER: Negligible  
PERCENT VOLATILE: 0% EVAPORATION RATE (Water=1): Very slow  
APPEARANCE AND ODOR: Dark red, clear and bright liquid with "petroleum oil" odor.

**FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT: (ASTM D-92) 430°F to 475°F AUTOIGNITION TEMP.: Not known  
FLAMMABLE LIMITS IN AIR: Not known  
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.  
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B' fires (29 CFR 1910.156).  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

CHEMICAL REACTIVITY~~STABILITY: Stable under normal conditions.~~

CONDITIONS TO AVOID: Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

REVISION DATE: 11/5/81

REPLACING DATE OF: 12/80

PRODUCT CODES: In ascending order of grade:

P 3497, P 3546, P 3498, P 3547, P 3502, P 3548, P3499, P 3549, P 3500, P 3545

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator



**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building

Cleveland, Ohio 44115

**CORPORATE EMERGENCY TELEPHONE (Toll-Free)**

FROM WITHIN OHIO: 800-362-8059

FROM OUTSIDE OHIO: 800-321-8642

CHEMTREC (CMA): 800-424-9300

ORIGINAL  
(Red)

**DESCRIPTION**

CHEMICAL NAME: Petroleum Oil

CAS REGISTRY NO.: Mixture

SYNONYMS: Lubricating oil, crankcase oil, engine oil

CHEMICAL FAMILY: Hydrocarbons

FORMULA: Refined petroleum oil plus additives

COMPOSITION: Solvent refined paraffinic base oil blend plus ethylene-propylene copolymer viscosity index improver and alkyl zinc dithiophosphate, magnesium phenate, calcium phenate ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% calcium, 0.2% zinc, 0.1% magnesium and 0.2% phosphorus.

**STATEMENT OF HEALTH HAZARD**

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.

EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

**EMERGENCY TREATMENT**

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.

EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.

NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

**PHYSICAL DATA**

BOILING PT.: (Initial) 725°F

POUR PT.: -25°F

VAPOR PRESSURE: @ 100°F: 0.1 mm Hg

VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor

SPECIFIC GRAVITY: @ 60°F: 0.876 to 0.893

SOLUBILITY IN WATER: Negligible

PERCENT VOLATILE: 0%

EVAPORATION RATE (Water=1): Very slow

APPEARANCE AND ODOR: Dark red, clear and bright liquid with "petroleum oil" odor.

**FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT: (ASTM D-92) 440°F

AUTOIGNITION TEMP.: Not known

FLAMMABLE LIMITS IN AIR: Not known

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.

SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)

### CHEMICAL REACTIVITY

~~STABILITY: Stable under normal conditions~~

**CONDITIONS TO AVOID:** Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

### SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN:** Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

**WASTE DISPOSAL:** Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

### SPECIAL PROTECTION AND PROCEDURES

**RESPIRATORY PROTECTION:** Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

**VENTILATION:** Local or mechanical ventilation sufficient to control mist below TLV level.

**PROTECTIVE EQUIPMENT:** Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

### SPECIAL PRECAUTIONS

**HANDLING AND STORING:** Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

**WORKPLACE:** Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

**DISPOSAL:** Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

**PERSONAL:** Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

### LABELING AND SHIPPING

**HAZARD CLASS:** None

**PROPER SHIPPING NAME:** Lubricating oil (motor); Petroleum lubricating oil (rail)

**PLACARD:** None

**LABEL:** None

**STCC NO.:** 2911415

**IDENTIFICATION NO.:** None

### OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

**REVISION DATE:** 11/5/81

**REPLACING DATE OF:** Original Issue

**PRODUCT CODES:** P 3542, P 3554

**REVIEWED BY:** RJF/WM/ECR/RAR/CWS/WJW

**APPROVED:** 

**TITLE:** Product Safety Coordinator

**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

CORPORATE EMERGENCY TELEPHONE (Toll-Free)  
FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

Midland Building  
Cleveland, Ohio 44115

**DESCRIPTION**

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Lubricating oil, crankcase oil, engine oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Solvent refined paraffinic base oil blend plus alkyl zinc dithiophosphate, calcium sulfonate, calcium phenate, and ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% zinc, 0.3% calcium, and 0.2% phosphorus.

**STATEMENT OF HEALTH HAZARD**

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. ~~NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.~~  
EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

**EMERGENCY TREATMENT**

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.  
EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.  
NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

**PHYSICAL DATA**

BOILING PT.: (Initial) 725°F POUR PT.: -20 to 0°F  
VAPOR PRESSURE: @ 100°F: <0.1 mm Hg VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor  
SPECIFIC GRAVITY: @ 60°F: 0.876-0.892 SOLUBILITY IN WATER: Negligible  
PERCENT VOLATILE: @ 100°F: 0% EVAPORATION RATE (Water=1): Very slow  
APPEARANCE AND ODOR: Orange to dark orange clear and bright liquid with "petroleum oil" odor.

**FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT: (ASTM D-92) 420°F to 450°F AUTOIGNITION TEMP.: Not known  
FLAMMABLE LIMITS IN AIR: Not known  
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.  
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)

### CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions.

~~CONDITIONS TO AVOID:~~ Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

### SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

### SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

### SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

### LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

PLACARD: None

STCC NO.: 2911415

LABEL: None

IDENTIFICATION NO.: None

### OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

REVISION DATE: 11/5/81

REPLACING DATE OF: 1/18/79

PRODUCT CODES: In ascending order of grade:

P 3515, P 3550, P 3516, P 3551, P 3517, P 3552, P 3518, P 3553

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: *[Signature]*

TITLE: Product Safety Coordinator

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building  
Cleveland, Ohio 44115

ORIGINAL  
CORPORATE EMERGENCY TELEPHONE (Toll-Free)  
FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

ORIGINAL

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Lubricating oil, crankcase oil, engine oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate polymer viscosity index improver and alkyl zinc dithiophosphate, calcium sulfonate, calcium phenate, and ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% zinc, 0.3% calcium, and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.  
EXPOSURE LIMITS: Oil mist:  $5 \text{ mg/m}^3$  (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.  
EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.  
NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F POUR PT.: -25°F  
VAPOR PRESSURE: @ 100°F: <0.1 mm Hg VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor  
SPECIFIC GRAVITY: @ 60°F: 0.872-0.893 SOLUBILITY IN WATER: Negligible  
PERCENT VOLATILE: 0% EVAPORATION RATE (Water=1): Very slow  
APPEARANCE AND ODOR: Dark orange, clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 410°F AUTOIGNITION TEMP.: Not known  
FLAMMABLE LIMITS IN AIR: Not known  
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.  
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

**MATERIAL SAFETY DATA SHEET - VANELLUS SUPER DF 10W30 MOTOR OIL**

Page Two

ORIGINAL  
(Red)

**CHEMICAL REACTIVITY**

**STABILITY:** Stable under normal conditions.

**CONDITIONS TO AVOID:** Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

**SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN:** Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

**WASTE DISPOSAL:** Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (49 CFR 265.314).

**SPECIAL PROTECTION AND PROCEDURES**

**RESPIRATORY PROTECTION:** Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

**VENTILATION:** Local or mechanical ventilation sufficient to control mist below TLV level.

**PROTECTIVE EQUIPMENT:** Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

**SPECIAL PRECAUTIONS**

**HANDLING AND STORING:** Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

**WORKPLACE:** Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

**DISPOSAL:** Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

**PERSONAL:** Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

**LABELING AND SHIPPING**

**HAZARD CLASS:** None

**PROPER SHIPPING NAME:** Lubricating oil (motor); Petroleum lubricating oil (rail)

**PLACARD:** None

**LABEL:** None

**STCC NO.:** 2911415

**IDENTIFICATION NO.:** None

**OTHER REGULATORY REQUIREMENTS**

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

**REVISION DATE:** 11/5/81

**REPLACING DATE OF:** 1/18/79

**PRODUCT CODES:** P 3510, P 3556

**REVIEWED BY:** PJF/WDM/ECP/RAR/CWS/WJW/SMD

**APPROVED:** 

**TITLE:** Product Safety Coordinator

MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

Midland Building  
Cleveland, Ohio 44115

CORPORATE EMERGENCY TELEPHONE (TOLL FREE)

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642  
CHEMTREC (CMA): 800-424-9300

ORIGINAL  
(Rev)

DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Lubricating oil, crankcase oil, engine oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate polymer viscosity index improver and alkyl zinc dithiophosphate, calcium sulfonate, calcium phenate, and ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% zinc, 0.3% calcium, and 0.2% phosphorus.

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.  
EXPOSURE LIMITS: Oil mist:  $5 \text{ mg/m}^3$  (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.  
EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.  
NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

PHYSICAL DATA

BOILING PT.: (Initial) 725°F POUR PT.: -25°F  
VAPOR PRESSURE: @ 100°F: <0.1 mm Hg VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor  
SPECIFIC GRAVITY: @ 60°F: 0.876-0.893 SOLUBILITY IN WATER: Slight  
PERCENT VOLATILE: 0% EVAPORATION RATE (Water=1): Very slow  
APPEARANCE AND ODOR: Dark orange clear and bright liquid with "petroleum oil" odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 425°F AUTOIGNITION TEMP.: Not known  
FLAMMABLE LIMITS IN AIR: Not known  
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.  
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

**MATERIAL SAFETY DATA SHEET**

**MARKETED BY:**

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.

**CORPORATE EMERGENCY TELEPHONE (Toll-Free)**

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642 ORIGINAL  
CHEMTREC (CMA): 800-424-9300 (Red)

Cleveland, Ohio 44115

**DESCRIPTION**

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Lubricating oil, crankcase oil, engine oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate polymer viscosity index improver and alkyl zinc dithiophosphate, calcium sulfonate, calcium phenate, and ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% zinc, 0.3% calcium, and 0.2% phosphorus.

**STATEMENT OF HEALTH HAZARD**

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.  
EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

**EMERGENCY TREATMENT**

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.  
EMERGENCY AID: Eye: wash with copious amount of water for 15 minutes. Eyelids should be held apart and away from eyeball to ensure thorough rinsing. Skin: wash thoroughly with soap and water. Change all contaminated clothing; shower at earliest convenience. Ingestion: DO NOT INDUCE VOMITING BECAUSE OF DANGER OF ASPIRATING OIL INTO LUNGS. Refer to physician. IF SYMPTOMS PERSIST OR EXPOSURE IS SEVERE, SEEK PROMPT MEDICAL HELP.  
NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

**PHYSICAL DATA**

BOILING PT.: (Initial) 725°F POUR PT.: -25°F  
VAPOR PRESSURE: @ 100°F: <0.1 mm Hg VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor  
SPECIFIC GRAVITY: @ 60°F: 0.872-0.893 SOLUBILITY IN WATER: Negligible  
PERCENT VOLATILE: 0% EVAPORATION RATE (Water=1): Very slow  
APPEARANCE AND ODOR: Dark orange, clear and bright liquid with "petroleum oil" odor.

**FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT: (ASTM D-92) 410°F AUTOIGNITION TEMP.: Not known  
FLAMMABLE LIMITS IN AIR: Not known  
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.  
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None



MATERIAL SAFETY DATA SHEET - EXTRA DUTY 10W30 MOTOR OIL

Page Two

ORIGINAL  
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure. Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

RESPIRATORY PROTECTION: Not needed in normal use. A cartridge respirator for oil mists may be used where misting is a problem.

VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

WORKPLACE: Practice good housekeeping. Clean up spills promptly to avoid slippery footing. Have needed protective equipment and fire extinguisher available. Check operations for possibility of ignition where oil is present.

DISPOSAL: Used oil must be disposed of in an environmentally acceptable manner. Do not put oil into sewer system or use as road oil or other use which may result in uncontrolled release. See WASTE DISPOSAL.

PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

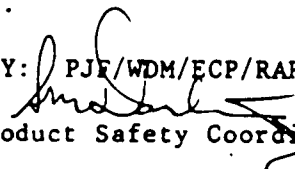
Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

REVISION DATE: 11/5/81

REPLACING DATE OF: 1/18/79

PRODUCT CODES: P 3556

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator

# MATERIAL SAFETY DATA SHEET

## MARKETED BY:

THE STANDARD OIL COMPANY (OHIO)  
BORON OIL COMPANY  
BP OIL INC.  
Midland Building  
Cleveland, Ohio 44115

## CORPORATE EMERGENCY TELEPHONE (Toll-Free)

FROM WITHIN OHIO: 800-362-8059  
FROM OUTSIDE OHIO: 800-321-8642 (Red)  
CHEMTREC (CMA): 800-424-9300

## DESCRIPTION

CHEMICAL NAME: Petroleum Oil CAS REGISTRY NO.: Mixture  
SYNONYMS: Lubricating oil, crankcase oil, engine oil  
CHEMICAL FAMILY: Hydrocarbons FORMULA: Refined petroleum oil plus additives  
COMPOSITION: Solvent refined paraffinic base oil blend plus methacrylate polymer viscosity index improver and alkyl zinc dithiophosphate, calcium sulfonate, calcium phenate, and ashless succinimide dispersant/detergent package. The blended oil contains not more than 0.2% zinc, 0.3% calcium, and 0.2% phosphorus.

## STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION: No acute adverse effects from incidental contact with new oil. Skin irritation, dermatitis from excessive prolonged or repeated contact. Danger of serious pneumonitis from aspiration into lungs if swallowed. NOTE: USED MOTOR OIL MAY CAUSE MORE SERIOUS SKIN PROBLEMS. AROMATIC HYDROCARBONS FORMED IN FUEL COMBUSTION ACCUMULATE IN THE ENGINE OIL. SOME DRAIN OILS HAVE CAUSED SKIN CANCER IN MICE IN LIFE-TIME SKIN-PAINTING TESTS. AVOID ALL UNNECESSARY CONTACTS WITH USED OILS.  
EXPOSURE LIMITS: Oil mist: 5 mg/m<sup>3</sup> (TLV - 8 hr. time weighted average exposure). (OSHA: 29 CFR 1910.1000 Table Z-1). Avoid unnecessary exposure to liquid oil.

## EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE: Excessive prolonged or repeated contact may dry skin, cause irritation, dermatitis, lesions. Allergic reaction may occur with a few individuals. Swallowing liquid oil may cause discomfort but no lasting effects. Liquid oil aspirated into lungs may cause dangerous chemical pneumonitis.  
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NOTE TO PHYSICIAN: Petroleum aspiration may cause severe pneumonitis ("oil pneumonia"). Vomiting should not be induced, and gastric lavage should be undertaken with consideration of endotracheal intubation, especially with an unconscious patient.

## PHYSICAL DATA

BOILING PT.: (Initial) 725°F POUR PT.: -25°F  
VAPOR PRESSURE: @ 100°F: <0.1 mm Hg VAPOR DENSITY (Air=1): @ 100°F: no measurable vapor  
SPECIFIC GRAVITY: @ 60°F: 0.876-0.893 SOLUBILITY IN WATER: Negligible  
PERCENT VOLATILE: @ 100°F: 0% EVAPORATION RATE (Water=1): Very slow  
APPEARANCE AND ODOR: Dark orange, clear and bright liquid with "petroleum oil" odor.

## FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (ASTM D-92) 410°F AUTOIGNITION TEMP.: Not known  
FLAMMABLE LIMITS IN AIR: Not known  
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemicals, sand or earth, water fog.  
SPECIAL FIRE-FIGHTING PROCEDURES: Avoid breathing fumes from fire, wear adequate respiratory protection. Do not spray water directly into fire as oil will float on top, carrying the fire to other areas. Use water to cool threatened containers. Liquids with flash points at or above 200°F (93.3°C) are classified as Class IIIB Combustible Liquids under OSHA (29 CFR 1910.106). Fires involving motor oils are Class B fires (29 CFR 1910.156).  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

ORIGINAL  
(Red)

CHEMICAL REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: ~~Avoid contact with strong oxidizers such as organic peroxide, chromic acid, bromine, chlorine, sodium peroxide, oxygen under pressure.~~ Avoid contact with open flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, traces of sulfur dioxide and nitrogen oxides from combustion. Reactive volatile hydrocarbons from thermal decomposition.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN: Eliminate all sources of ignition. Contain spill. Remove liquid by mopping, vacuum, or absorbent. Avoid unnecessary contact with liquid by use of oil impervious gloves, boots, and other protective clothing as needed.

WASTE DISPOSAL: Deposit recovered liquid in waste oil system, incinerate under approved conditions, or transfer recovered oil to an approved re-refiner. Contaminated absorbent and diking material may be put in approved landfill. Deposit of liquid in landfill is strictly regulated (40 CFR 265.314).

SPECIAL PROTECTION AND PROCEDURES

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VENTILATION: Local or mechanical ventilation sufficient to control mist below TLV level.

PROTECTIVE EQUIPMENT: Not needed in normal use. Barrier creams, oil-impervious gloves and sleeves or other protective gear, including eye shield, may be used to reduce chances of contact.

SPECIAL PRECAUTIONS

HANDLING AND STORING: Avoid extremes of temperature in storage. Store away from sources of ignition. Avoid contamination. Do not store in unlabeled containers.

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PERSONAL: Practice of good personal hygiene is most important. Do not continue to wear oil-soaked clothing. Discard oil-soaked leather goods. Wash before eating. Use emollient cream to counter dry skin if needed.

LABELING AND SHIPPING

HAZARD CLASS: None

PROPER SHIPPING NAME: Lubricating oil (motor); Petroleum lubricating oil (rail)

PLACARD: None

LABEL: None

STCC NO.: 2911415

IDENTIFICATION NO.: None

OTHER REGULATORY REQUIREMENTS

Any environmental release which introduces oil into a navigable waterway (sufficient to produce an oil sheen) must be reported promptly to the National Response Center, U.S. Coast Guard, Washington, D.C. (1-800-424-8802). (FWPCA §311(b)(3)).

REVISION DATE: 11/5/81

REPLACING DATE OF: 11/18/79

PRODUCT CODES: P 3510, P 3556

REVIEWED BY: PJF/WDM/ECP/RAR/CWS/WJW/SMD

APPROVED: 

TITLE: Product Safety Coordinator